

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 May 2004 (27.05.2004)

PCT

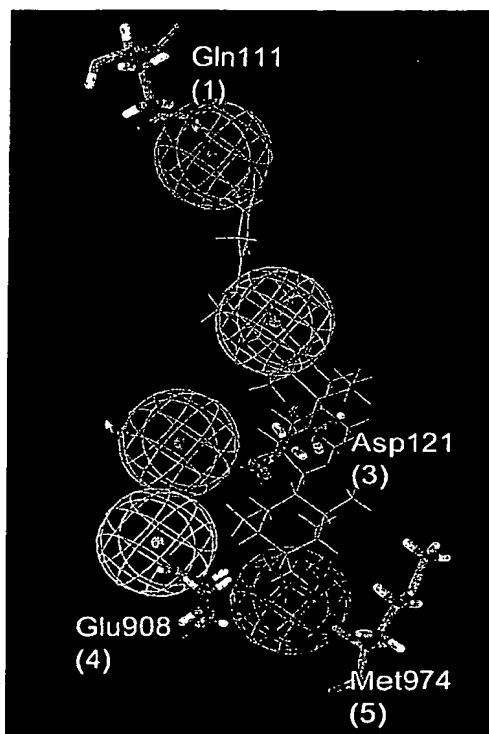
(10) International Publication Number
WO 2004/043384 A2

- (51) International Patent Classification⁷: **A61K**
- (21) International Application Number:
PCT/US2003/035636
- (22) International Filing Date:
7 November 2003 (07.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/425,037 7 November 2002 (07.11.2002) US
- (71) Applicant (for all designated States except US): **UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY** [US/US]; 335 George Street, Suite 3200, New Brunswick, NJ 08901 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **WELSH, William, J.** [US/US]; University of Medicine and Dentistry of New Jersey, 675 Hoes Lane, Piscataway, NJ 08854 (US).
- (74) Agent: **SLIGER, Lauren**; Perkins Coie LLP, Patent-LA, P.O. Box 1208, Seattle, WA 98111-1208 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: NOVEL PHARMACOPHORE FOR THE DISCOVERY AND TESTING OF NA, K-ATPASE INHIBITOR COMPOSITIONS AND METHODS FOR THEIR USE IN TREATING CARDIOVASCULAR DISEASES AND CONDITIONS

(57) Abstract: Disclosed is a novel pharmacophore and novel inotropic compositions created from the novel pharmacophore. Also disclosed are methods of making and using the novel pharmacophore and method of use of novel compositions to treat heart diseases by inhibiting Na, K-ATPase.





Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *without international search report and to be republished upon receipt of that report*